FOREIGN AGRICULTURE

Camel carries Egyptian sugarcane

World Meat Output on Rise

France's Corn Uptrend Ending?

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In Egypt, camels are commonly used to carry harvested sugarcane from fields to waiting trucks or to the railhead for transportation to the crushing factory. Egypt is striving to reach self-sufficiency in sugar production, but it still needs imports. See article beginning on page 6.

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Record trade possible

Gain Forecast for World Meat Production This Year

By FOREIGN COMMODITY ANALYSIS
Dairy, Livestock, and Poultry
Foreign Agricultural Service

PRODUCTION of meat this year in key commercial markets—the United States, Canada, the European Community, and Japan—is estimated to rise 3 percent from the 1975 level, despite an expected decline in beef production by the European Community. The estimate could increase, however, should changes in EC dairy policies, or continuation of the severe drought in the United Kingdom, France, and West Germany, force stepped-up cattle slaughter.

In the major exporters—Australia, New Zealand, Central America, Argentina, and Uruguay—beef and veal production is expected to rise by about 11 percent, or 670,000 metric tons.

While they can expect to increase sales of meat to Japan by more than 100,000 tons this year, these exporting nations will not find particularly good prospects for export expansion in their other leading markets. U.S. beef and veal imports are seen rising by less than 50,000 tons; Canada's will be up only fractionaly; and the EC may import only about 50,000 tons more than its sharply reduced takings last year since it still has in storage some 300,000 tons of beef left from the market glut of 1974/75. The Community also faces a potential surplus this year if imports by Italy—the major meat-deficit member and traditionally a big purchaser from fellow EC Members—decline sharply in the face of its economic problems.

Thus, the exporting nations this year are again seeking markets outside their usual outlets for beef and veal. Currently, it looks as if they will probably absorb some 165,000 tons of the increased supply domestically, while shipping nearly 300,000 to nontraditional markets.

The most important of these nontraditional markets could be the USSR, which some sources are predicting will buy 500,000-600,000 tons of meat and meat products (product-weight basis), mainly beef, in 1976. (So far, however, actual sales to that market have been small.)

Such imports would help compensate for reduced meat output in the USSR this year following heavy drought-induced slaughter during 1975. They would continue the sizable Soviet imports of the past 2 years, when the country imported 515,000 tons of meat and meat products, product-weight basis, in both years.

Should these trade gains materialize, world beef and veal imports would approach the alltime high of 2.806 million tons shipped in 1973.

United States. U.S. meat production in 1976 is estimated to rise 6 percent from 1975's to about 22.8 million tons. Of this, beef and veal production is expected to reach 11.8 million tons, for a 4.4 percent increase from 1975's, pork production may rise 5 percent to 5.5 million tons; and poultry output is seen gaining 10 percent to 5.3 million.

U.S. cattle slaughter in 1976 is estimated at around 1975's level of 41 million head, with increased slaughter weights boosting actual beef output 3-5 percent above last year's record. During the last half of 1976, fed-beef production is expected to run 20-25 percent above that in the same period of 1975, while production of nonfed beef contracts even more sharply. The decline in nonfed beef, in turn, may curb output through the summer and possibly boost fed cattle prices back into the $45 to $50 range before they slip seasonally lower in the fall.

After reaching a 10-year low in 1975, U.S. pork output may recover 5-6 percent this year to 5.5 million tons, and hog numbers may gain 7 percent by De-

NOTE: Earlier world meat estimates appear in the May 10, 1976, and Feb. 2, 1976, issues of *Foreign Agriculture*.

[1] All meat production and trade data are on a carcass-weight basis unless otherwise indicated.

cember 1, 1976, from the year-earlier level to around 53 million head. Seasonal declines in hog slaughter after midyear will likely be smaller than usual, followed by substantial increases in slaughter by early fall.

Despite the rebounding production, hog prices have been remarkably stable during the last 7 months, fluctuating mostly between $47 and $50 per 100 pounds. Prices could rise seasonally above $50 this summer before trending down during the second half.

U.S. poultry production in 1976 is estimated to reach 5.3 million tons—a 10 percent increase over the year-earlier's 4.8 million. A 10 percent gain also is likely for broiler meat and turkey production, with the former pegged at 4 million tons for 1976.

U.S. imports of red meat in the first 4 months of 1976 totaled about 375,000 tons—7 percent above those of the same period in 1975. The greatest absolute increase—by nearly 50 million pounds in the first 4 months—came in imports of canned, corned beef, and other prepared or preserved beef from Argentina and Brazil. Imports of prepared beef and veal alone—usually insignificant—rose by 4 million pounds during January-April. Both these categories are exempt from the voluntary restraint program being negotiated by the Department of State this year with principal supplying countries (see box opposite).

U.S. exports of beef and veal this year are estimated at 45,000 tons, or 5,000 tons above FAS's April forecast and around 25,000 over last year's shipments. U.S. exports of pork and poultry also will be up—and approaching record levels.

European Community. Beef and veal production in the EC is forecast down 5 percent from last year's to about 6.2 million tons, while pork production is forecast up 1 percent to 7.6 million tons; poultry, up 4 percent to 3.3 million tons, and mutton and lamb, unchanged at 500,000 tons. These figures are all unchanged from earlier FAS forecasts, as are estimated imports of 250,000 tons. However, they could change in view of the continuing European drought and evidence of stepped up slaughter in France, the United Kingdom, and other countries.

The prospective small imports—only 50,000 tons above last year's low level—reflect the Community's 300,000-ton stockpile of cold-storage beef and the recent economic problems in the important Italian market. Italy alone, for instance, normally imports about 300,000 tons of beef and veal and over 2 million head of cattle. Since the EC's 1974 ban on beef imports, it has taken most of this from France and West Germany.

Should the new Italian Government impose tighter economic controls and stricter import restraints—it currently has it effect a restrictive prior import deposit scheme—the EC beef market could have a serious beef surplus in the foreseeable future. The same holds true for the near term if the EC moves to cut its dairy surplus by reducing cow numbers.

Japan. As forecast earlier, Japan's imports of beef and veal in 1976 may rise by nearly 100,000 metric tons to 160,000 tons. A sizable portion of these imports could enter as chilled beef, allowing the U.S. market share to double the 7 percent held in 1975.

With beef prices remaining high, Japan has been importing cattle for slaughter since late 1975—a trade that eventually could have a moderating impact on beef imports. However, the United States also is gaining a market share here, since export figures indicate that 707 head of U.S. slaughter cattle were exported to Japan during January-May.

Japanese beef production, meantime, is forecast nearly 20 percent below the 339,000 tons produced in 1975 as producers hold back on deliveries of dairy

Third Estimate of Meat Imports Made

Secretary of Agriculture Earl L. Butz announced on June 28 that U.S. 1976 imports of meat subject to the Meat Import Law are estimated below the trigger level for quota imposition under the Law.

Secretary Butz said agreements in principle have been reached with major exporting countries that will limit U.S. imports to 1,223 million pounds. Formal agreements with participating countries are being concluded.

Public Law 88-482 enacted in August 1964 provides that if yearly imports of certain meats—primarily frozen beef—are estimated to equal or exceed 110 percent of an adjusted base quantity, quotas are to be imposed on imports of these meats. The adjusted base quantity for 1976 is 1,120.9 million pounds, and the trigger level is 1,233 million pounds.

The Secretary said 1976 imports probably would exceed the trigger level were it not for the expected arrangements with supplying countries.

The Secretary said that import prospects will be reviewed quarterly. The next estimate of 1976 imports of meat subject to the Meat Import Law will be made in late September and announced by October 1.

U.S. CUSTOMS SERVICE MONITORINGS OF MEAT SUBJECT TO MEAT IMPORT LAW[1] DURING MAY AND JANUARY-MAY 1976
[In 1,000 pounds]

Country of origin	May[2]	January-May[2]
Australia	49,097	276,014
Canada	7,355	33,623
Costa Rica	4,843	36,916
Dominican Republic	1,328	6,557
El Salvador	1,101	5,480
Guatemala	1,825	13,862
Haiti	80	700
Honduras	3,186	19,546
Ireland	858	4,154
Mexico	2,217	17,337
New Zealand	26,749	114,692
Nicaragua	5,686	24,093
Panama	90	3,449
Total[3]	104,415	556,423

[1] Fresh, frozen, and chilled beef, veal, mutton, and goat meat. Excludes canned meat and other prepared or preserved meat products. [2] Through May 29, 1976. [3] May not add due to rounding.

calves for slaughter in response to higher prices for fattened cattle and relatively lower import costs.

Production of pork will increase in 1976 but probably only by 2 percent to 930,000 tons, compared with earlier forecasts of a much stronger rebound from the reduced output of 1975. This relatively modest gain, plus strong demand for processed meats made from pork, is expected to keep pork imports close to the 1975 level of 140,000 tons.

Strong demand also is pushing up Japanese poultry imports, estimated to rise 20 percent above the 1975 level to over 25,000 tons. Total poultry meat output this year is expected to remain stable, despite a 5 percent increase in broiler output to 640,000 tons.

Mutton imports may decline slightly from the high 1975 level of 180,000 tons, as a result of strong competition from pork for processing meats.

Canada. Beef and veal production in Canada is forecast at 1.1 million tons—up 3 percent from 1975. The number of beef cattle slaughtered is forecast to trend lower in the last half of the year, following an early-season increase. However, the expanded slaughter of heavier fed cattle and the possible culling of 200,000-250,000 dairy cows as a result of a change in dairy policy accounts for the projected gain in beef output.

The change in dairy policy, made in mid-April, aims at cutting Canada's 1976/77 milk production by 15 percent to prevent unmanageable and costly surpluses. Its provisions include a special levy of Can$8.60 per 100 pounds, plus additional transportation costs and the loss of a $2.66 Federal subsidy on over-quota milk deliveries. Together, these will result in a negative value of 19 cents per 100 pounds on over-quota deliveries.

Canadian imports of beef in 1976 are forecast at about 100,000 tons, compared with 89,000 in 1975, and include around 80,000 tons of frozen boneless beef, mainly from Australia and New Zealand. Imports of chilled beef, largely from the United States, are forecast at about 11,000 tons, compared with 10,200 in 1975.

Unlike the U.S. industry, Canadian pork production has not yet begun to recover from the low output of 1975, with production this year estimated down 4 percent to 475,000 tons. Production recovery, following sharp declines in the past 2 years, hinges largely upon a return to hog raising in Western Canada. Grain farmers there are reluctant to feed hogs grain that can be sold at a good profit.

Canada's imports of pork in 1976 are forecast at about 65,000 tons, compared with 45,000 in 1975. The import gain reflects lower production plus a prospective increase in pork exports as a result of commitments made to Japanese trading companies. These exports are forecast at 45,000 tons in 1976, compared with 41,000 in 1975.

USSR. Following last year's distress slaughtering and resulting meat production gains in response to severe drought, meat production in the USSR this year will probably decline from the record 15.2 million tons achieved in 1975.

As of June 1, 1976, cattle numbers on State and Collective farms were 87.8 million head, up 1 percent over those at the same time in 1975. The monthly rate of increase in cattle numbers has been slipping since March 1976. June 1 numbers were only 1 percent above May's.

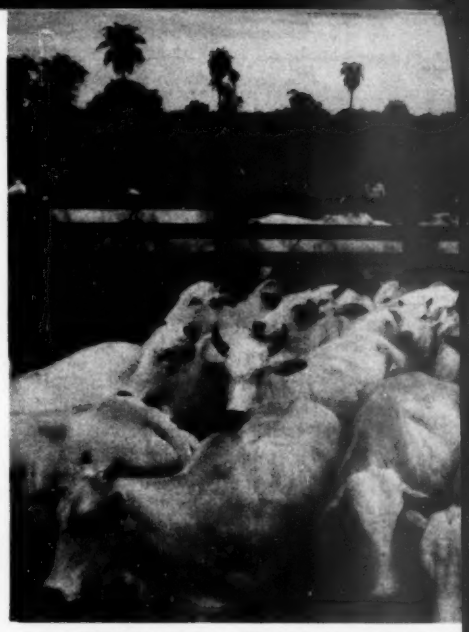
After seeing their hog numbers reduced to 41.9 million as of January 1, 1976, the Soviets have started to rebuild inventories. As of June 1, numbers were 45.6 million head—9 percent above those of January 1 and only 17 percent below the June 1975 peak. Similar efforts are underway in the poultry industry, whose inventory has increased 31 percent since the beginning of 1976.

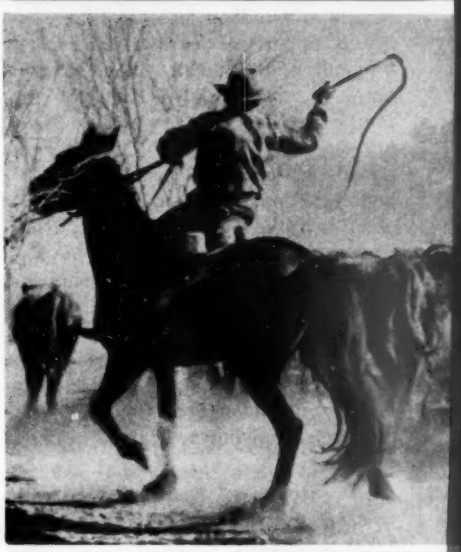
With efforts concentrated on rebuilding inventories, at the expense of meat production, the USSR needs to import more meat this year than in 1975 if it is to maintain consumption levels.

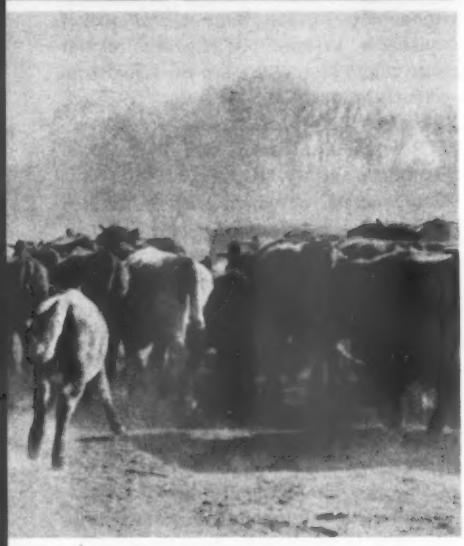
Current estimates are that the USSR might buy 500,000-600,000 tons of meat products, weight basis. But to date it has purchased only about 25,000 tons of mutton and 10,000 of beef from New Zealand and signed a 10-year agreement with Hungary calling for imports of 18,500 tons of beef each year.

Australia and the European Community also are potential suppliers of beef to the USSR—although no sales have yet been reported—and the USSR is exploring the possibility of importing poultry from nontraditional suppliers, including the United States and Europe.

Australia. Beef and veal production in Australia is forecast at 1.8 million tons in 1976, up about 9 percent from that of 1975. Cattle slaughter for the year is expected to average about 15







Top to bottom Zebu cattle in Brazil, an Australian cattle drive, and loading meat into refrigerated trailers in Costa Rica. Meat output and trade both will be up this year, with beef trade possibly setting a new record despite continuing import restraints on beef in the once-big EC market.

percent above 1975's, but average carcass weights will be down for all of 1976. Cattle slaughter was up 22 percent and calf slaughter up 36 percent during the first quarter of 1976; however, beef and veal production rose only 16 percent, reflecting lower slaughter weights due to floods in areas of the north and drought in certain southern regions.

Even if the present drought continues, cattle slaughter and meat production are unlikely to go much higher than currently projected as a result of bottlenecks in the meat-processing industry.

Australian cattle numbers as of March 31, 1976, are estimated at 33.5 million head, compared with 32.8 million a year earlier. This estimate supports the projection of a continued high level of cattle slaughter during the balance of 1976 and a slightly higher slaughter in 1977. However, total beef and veal production in 1977 will be heavily dependent on rainfall and seasonal conditions later this year and in early 1977.

Domestic consumption is forecast to rise to 940,000 tons in 1976—slightly over half the predicted production, compared with about 45 percent in 1975.

Although export prices for beef are up nearly 60 percent from those of a year earlier, overall live cattle prices have slumped sharply from earlier this year. Prices for yearlings declined by A$25 per head; bullocks, A$20; and fat cows, A$15 in late April and early May from levels a few weeks earlier. Owing to oversupply of off-condition animals relative to slaughter capacity and the available market outlets for beef, prices for most categories of cattle are likely to continue to be depressed for some time.

Australian exports of beef and veal in 1976 are forecast at 855,000 tons, about 9 percent larger than 1975 exports.

The Japanese market continues to look favorable to Australian traders. However, current forecasts for beef and veal sales to that market—75,000 tons, product weight—are slightly below earlier forecasts, partly due to difficulties in obtaining heavier fed cattle for slaughter to meet Japanese demand for chilled beef. Exports to Canada, the Middle East, Malaysia-Singapore, and other destinations are a little more promising. The Soviets are playing a waiting game, possibly to obtain more favorable prices. Consequently, the prospective export level to them continues to be unknown.

New Zealand. Beef and veal production in New Zealand in 1976 is forecast at 530,000 tons, 4.5 percent above 1975's and well above earlier projections. Cattle slaughter so far this year has been running more than 25 percent above the low level of the comparable period of 1975 when producers held cattle back awaiting higher guaranteed prices, effective October 1, 1975. However, they actually began moving cattle to market earlier than that since the Government began paying premiums to encourage producers to market cattle in June-September 1975. The resulting surge in marketings during late 1975 is not likely to be duplicated this year.

Potential clouds in the picture are drought and labor difficulties that have occurred in some areas. These could result in a greater reduction in the anticipated cattle slaughter and beef production later this year than now anticipated.

If per capita consumption is held near the 1975 level, some 190,000 tons of beef and veal will be consumed domestically in 1976. Thus, New Zealand will have about 270,000 tons, product weight, available for export in 1976.

SHIPMENTS to principal markets, including the United States, are forecast at 170,000 tons. Another 65,000 tons will have to be shipped to minor and new markets to prevent an increase in carryover stocks from the 35,000 tons held as of December 1975.

Central America and the Caribbean. Cattle numbers in the Central American and Caribbean countries that ship beef to the United States increased 3 percent during 1975 to about 13.6 million head as of January 1, 1976, and are seen gaining another 2 percent in 1976. Cattle slaughter this year is expected to rise 7 percent to more than 2 million head, boosting beef production by 7 percent to 360,000 tons.

Beef exports are currently forecast at 139,000 tons—4,000 above earlier estimates made on April 1. Exports to the United States could reach about 100,000 tons, against 90,000 in 1975. In the first 5 months of 1976, the United States imported 50,000 tons of Central American meat subject to this year's restraint program. Cattle slaughter and exports to the United States are expected to decline seasonally through most of the summer, then return to

normal levels in August.

Mexico. During the first quarter of 1976, Mexico's beef and veal exports to the United States totaled 11.3 million pounds—up 7.2 million from first-quarter shipments in 1975. Of the total, "Maquila" beef (U.S. cattle exported to Mexico for slaughter and reexported as beef to the United States) totaled 4.7 million pounds, against 3.4 million in 1975.

A slight drop in U.S. boning cattle prices or an upward movement in the U.S. price of boneless beef will renew demand for U.S. Maquila cattle. Trade contacts and patterns have been established—and the U.S. Maquila cattle trade can respond on shorter notice and with larger numbers to changes in the Mexican market than in the past.

Dry range conditions prevail in the northwest States of Mexico. If there is no relief, some forced sales will be made, adding to the export supply. The meat trade reports some increased movement of slaughter cattle out of this area, but no mass sell off, and Mexican cattle prices continue firm.

Argentina. Argentine cattle slaughter is expected to reach 13.5 million head in 1976, up 13 percent from 1975. With heavier carcass weights, production is expected to climb 16 percent to reach 2.8 million tons.

Perhaps the most important developments in Argentine agriculture is the new Government's announced policy of reducing the powers of the National Meat and Grain Boards, reducing taxes on agricultural exports, and setting producer prices in accordance with world market levels. As a result of these changes, Argentina expects to export 550,000 tons of beef and veal in 1976—up sharply from the 400,000 tons projected earlier and more than double 1975's exports of 265,000. Domestic consumption is expected to remain near its current high level. Whether the increased production and exports foretell herd liquidation or strengthening of the cattle industry will depend on the cattlemen's faith in the Government's pursuit of its new policy.

Uruguay. Increased slaughter and higher average slaughter weights should push Uruguay's 1976 beef production about 11 percent over 1975's to 390,000 tons. With heavily stocked pastures and low live cattle prices (7 cents per lb) causing farmers to return to sheep raising, cattle slaughter is expected to reach 1.9 million head, up nearly 10 percent

Continued on page 12

Egypt To Boost Sugar Output, But Will Still Need Imports

By WILLIAM C. BOWSER, JR.
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EGYPT'S SUGAR production has increased steadily over the years but has failed to meet domestic needs during much of the past two and a half decades. The future will be much like the present—sugar output will continue to rise but large imports still will be needed.

With consumption increasing at an annual rate of about 6 percent, Egypt may even be hard pressed to keep from losing ground as it tries to meet its annual requirements from domestic output. Based on available data, the average Egyptian consumer uses about 40 pounds of sugar a year, somewhat less than half the amount consumed by his U.S. counterpart.

Egyptians utilize much of their sugar in the country's favorite beverage, a highly sweetened tea, which they consume throughout the day. Sweetened coffee is also a popular drink.

In the early 1950's, Egypt imported large quantities of sugar, but from 1955 through the early 1960's Egypt was mainly a net exporter. Requirements jumped sharply in 1966 and 1967, and imports rose to exceed exports by 255,000 and 176,000 metric tons, respectively, on a raw-equivalent basis, From 1968 through 1971, Egypt was again a significant net sugar exporter. Since 1972, however, Egypt's usage has trended upward, with estimated net sugar imports in 1975 amounting to over 200,000 tons.

Sugar is probably the fifth most important crop in Egypt, exceeded in value only by cotton, rice, corn, and wheat. In 1974, sugar output was valued at £E73.3 million (about US$187.6 million [1]), while refined sugar exports were worth £E9.2 million (US$23.6 million). But Egyptian sugar exports are expected to have dropped sharply in 1975 and to continue to fall in future years as the reopening of the Suez Canal makes available to some of Egypt's regular customers larger supplies of sugar from other producers such as India, Thailand, and the Philippines.

Egypt's total cane area in 1975 is estimated at 87,400 hectares (1 ha= 2.471 acres), of which 58,700 hectares were harvested for direct extraction of raw sugar. The balance—according to Government officials—included young plantings, but also major cane areas whose output was used largely for the production of cane syrup.

Only a small amount of additional land is available in Egypt to augment present sugar outturn. However, based on a feasibility study completed in late 1974, the Government plans to grow about 100,000 tons of beet sugar in the Nile Delta to help meet future consumption needs.

Egypt's sugar industry traces its origin to 1818 when the first sugarcane crushing plant was built near Mallawi. By the mid-1850's, Egypt was producing centrifugal sugar and in 1881 put into operation its first sugar refinery.

While production data concerning

[1] **The rate of exchange has been £E1= US$2.55 for the past several years.**

EGYPT: SUGAR PRODUCTION, CONSUMPTION, AND TRADE
[In metric tons]

Year	Production[1]	Imports[2]	Consumption	Exports[3]
1970	546,788	45,316	518,149	73,494
1971	633,266	52,295	554,831	110,064
1972	550,000	71,499	577,356	18,689
1973	571,909	61,650	628,000	36,108
1974[4]	576,927	103,000	666,431	46,588
1975[4]	521,994	([5])	711,150	([5])

[1] Refined and crude. [2] Raw and refined converted to raw equivalent. [3] Refined. [4] Preliminary. [5] Not available.

these early years are not readily available, more recent information reveals that Egypt's annual outturn of sugar between 1935 and 1939, inclusive, averaged 156,000 tons, raw value, and has grown steadily since that time. By the early 1950's, output had risen to around 250,000 tons a year, expanding to an average of 339,000 tons during 1956-1960, with production for the 1960/61 crop year approaching 400,000 tons.

A decade later, annual production of raw and refined sugar was over 600,000 tons, but since then it has tended to level off. In the 1974/75 crop year, output was estimated at 576,900 tons but it appears to have dropped somewhat in the 1975/76 sugar season.

One factor that helps to determine the amount of sugar produced in Egypt in a given year is the price paid to cane growers by the syrup processors versus what farmers get from sugar factories. In 1975, many syrup processors paid more for cane than the sugar factories, contributing to the year's lower raw sugar output.

For example, the sugarcane crushing factory in the Minia Governorate—the smallest processing operation in Egypt—paid £E4.5 per ton in 1975 and was able to acquire only enough cane to stay in operation for 90 days. In 1976, the same factory paid about £E7 per ton and was probably able to buy enough cane to operate at full capacity for nearly 150 days—from around January 1 through May 30—crushing some 4,500 tons per day.

Cane syrup is an important component of the daily diet of Egyptians living in rural areas, and there are hundreds of small crushing plants producing syrup, scattered throughout the sugarcane growing areas.

These facilities also frequently are used for the production of fresh cane juice, a popular drink in the cane-growing regions.

And, as in many other sugar producing countries, substantial quantities of sugarcane are sold in rural farm regions for chewing. This, according to local officials, not only provides a quick energy pick-me-up, but also does an excellent job of keeping the teeth strong and clean.

Farmers produce an average of 36 tons of cane per feddan (about 1 acre), according to Egyptian officials, and have a production cost of about £E150 per feddan for a net per-feddan income of about £E100. Since the average size of each family's holding is 2-4 feddans, the farmer's annual income from cane would be the equivalent of between US$510-$1,020.

After the sugarcane is cut, Egyptian field workers handstrip the foliage from stalks. The next stop is the crushing factory.

Domestic consumption of mill-white and refined sugar in 1975 was about 711,100 tons, up from 666,400 tons in 1974, and is expected to climb by an annual rate of about 6 percent through 1980, when consumption might approach 1 million tons a year. To meet current domestic requirements, Egypt has imported substantial quantities of raw sugar from Cuba and Brazil.

Production of raw and refined sugar is carried out by the Egyptian Company of Sugar and Distillation, operating under the Ministry of Industry. At the present time, there are seven large crushing factories located in the cane producing areas (an eighth is to be constructed shortly near Assud) and two refineries. About 40 percent of Egypt's mill-white sugar output is sent to the country's largest—but very old—sugar refinery near Giza, just outside of Cairo. The other—a small refinery—is at Idfu.

Besides producing for the domestic market a highly refined, pure white sugar—which the Egyptians greatly prefer—the Giza refinery also has exported substantial quantities of sugar to neighboring Arab states and other destinations.

For example, the factory produces 5-kilogram, conical-shaped blocks of refined sugar for shipment to Morocco. Apparently, this is one of the traditional forms in which sugar is marketed there.

Egypt's exports of refined sugar totaled 110,064 tons in 1971, dropped to 18,689 tons in 1972, but recovered to 46,588 tons in 1974.

Because of limited supplies available for domestic use, the Government rations sugar to consumers—selling it at subsidized prices. The present ration, about 1 kilogram per person per month, was available earlier in 1976 at 10 piastres per kilogram, or about 12 cents per pound. Egyptians can buy additional sugar on the open market, but must pay the going price, which may vary from 25 to 40 piastres per kilogram, depending on available supplies.

France's Uptrend in Corn Output Could Be Near End

By XAVIER ROUILLARD
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Paris

One of the worst droughts ever to hit Western Europe has drastically cut France's output of corn, barley, and other spring-sown grains.

In early July, with the drought yet unbroken, French corn production for 1976 was estimated at 5.5 million metric tons—a decline of a third from the crop of the previous year and only about half the size of the record crop of 1973.

Corn production at this level may transform France from a net corn exporter to a net importer in 1976, reports the U.S. Agricultural Attache in Paris.

Even so, this article points out that the long-term trend in French corn production may be down.

FRANCE'S corn production—trending up since the 1950's—may be at a turning point. If so, some once-optimistic projections for continued increases up to 1980 may be far from the mark, and downtrends in planted area and output could be in the making.

Latest estimates of area planted to corn for grain in France during 1976/77 are for 4.5-4.6 million acres, compared with 4.9 million acres planted in 1975 and 4.7 million in 1974. (In 1975, corn plantings were inflated as a result of bad sowing conditions for winter wheat.)

Projections drawn 2 years ago by French corn experts for 7.02 million acres planted to corn by 1980 now seem unrealistic, for it is increasingly apparent that total corn acreage is leveling off or even declining slightly.

The recent history of corn in France shows two major surges in production —one in the late 1950's, when acreage nearly doubled from about 1.3 million acres in 1957 to about 2.4 million acres in 1961, and the second in the late 1960's and early 1970's, when acreage doubled again from about 2.4 million acres in 1968 to the record area of about 4.9 million acres planted in 1973.

The first production jump resulted from the introduction of U.S. hybrid varieties; the second flowed from genetic improvements in existing varieties.

Improved technology, appropriate application of fertilizer, and increased use of specific herbicides also contributed to the expansion in corn outturns. Yields increased accordingly—from about 42.9 bushels per acre in 1957 to a record 87.5 bushels per acre in 1973.

New, early varieties allowed for expansion in France's cooler regions, north of the traditional southwest growing area, which has lost much of its earlier relative importance. Now, more than 50 percent of France's corn output is grown north of the Loire.

The relative importance of corn in France also gained as wheat acreage fluctuated at around 9.8 million acres, barley area stabilized at around 6.6 million acres following an upward trend, and oats and rye were on sharp declines.

France has been in a surplus situation for corn since 1965, and a record 4.4 million tons were exported in 1973/74—mostly to other EC countries, which have accounted for at least 93 percent of total French exports since 1971. This export demand, plus sustained domestic demand, formed the basis for the optimistic prospects for expansion of corn production in France up to 1980.

There are several reasons for the present leveling-out of corn cultivation in France. Because of adverse weather (mainly drought) and phytosanitary problems, yields were low in 1972, 1974, and 1975. Irrigation costs have advanced. Producers have been attracted by crops that yield higher cash returns, such as sugarbeets.

With rotation restraints becoming less rigid, competition from other cereals—especially wheat—has been a strong factor in determining planting intentions, and the higher prices of fuel for drying weigh heavily on total corn production costs (the average moisture content of French corn is around 35 percent when harvested).

Another consideration is that France's wheat yields are approaching corn

Mechanized corn harvesting in France.

yields, particularly in the case of the new high-yield feed wheat varieties Maris Huntsmann and Clement. In the marginal areas for corn and bread-quality wheat such as Brittany and northwestern France, an alternative can be found in these new feed wheat varieties, although they are still limited in economic importance and account for only 10-15 percent of total wheat acreage.

CORN USED in prepared animal feed has been on a steady uptrend during the past 5 crop years and utilization increased by about 50 percent from 1971 to 1975. Use of wheat was close to that of corn in 1972/73 because of the impact of a denaturation premium offered by the EC, but this utilization quickly declined when the premium was withdrawn.

At the same time, use of barley and corn jumped sharply, more than offsetting the decrease in wheat use. The relative prices of grains are critical to their use by the feed industry. However, during the first months of the 1974/75 crop year prices of corn averaged 106 percent of wheat prices, and feed manufacturers altered their formulas very little because of delays in reacting to market changes.

The use of corn during the 1975/76

FRANCE: PRODUCTION AND FEED USE OF MAJOR GRAINS 1971/72-1975/76[1]
[In 1,000 metric tons]

Grains	1971/72	1972/73	1973/74	1974/75	1975/76[2]
Soft wheat:					
Production	14,979	17,602	17,338	18,594	14,229
On-farm use	2,784	2,753	2,730	2,535	2,029
Compound feed	1,515	2,275	1,382	1,368	800
Barley:					
Production	8,910	10,466	10,844	10,037	9,336
On-farm use	3,691	3,898	4,085	4,153	4,035
Compound feed	687	808	1,441	1,407	1,350
Corn:					
Production	8,954	8,257	10,671	8,699	8,164
On-farm use	1,780	1,604	1,941	1,773	1,664
Compound feed	2,594	2,703	3,302	3,316	4,000
Dry milling use	138	148	171	158	160
Wet milling use	649	702	764	807	802

[1] Years beginning August 1. [2] Preliminary.

crop year for feed manufacturing is estimated at 61 percent of the use of all grains, compared with 50 percent in 1971/72 and 51 percent in the past 2 crop years.

On-farm use of corn also is related to prices, availabilities, and condition of the crop. In bad years, corn is sometimes harvested for silage to be fed to animals on the farm.

France's wet corn milling industry is expanding steadily, but the growth rate has slackened since 1974/75, mainly because of the economic recession. The net impact of the general economic situation was even more important for the dry corn milling industry, as processed quantities dropped suddenly in 1974/75.

Production of corn for silage is increasing, especially in northwestern France and other areas less adapted to corn for grain. Area planted to forage corn (not included in the data presented in the second paragraph of this report) rose from around 988,000 acres in 1970 to 1.4 million acres in 1972 and about 2 million in 1975.

The expansion of forage corn outturns has been steady and regular compared with the increase in corn planted for grain, and 1976 area planted to forage corn should be up 5-10 percent from that of 1975.

EC GRAIN PRICES AFFECT CORN EXPORT LEVELS

The European Community's method of corn pricing—which bears heavily on France's level of exports of corn to other EC countries—recently has been revised. The new pricing system provides for an intervention price for feed wheat equal to that of barley, while the intervention price for corn rises closer to that for feed wheat and barley (an increase of 8.5 percent versus 4.5 percent for barley). One target price is set for both corn and barley as a result of an increase of 9 percent for corn versus 8.5 percent for barley.

It is anticipated that later there will be only one intervention price for corn, barley, and feed wheat.

These measures were taken to promote production of corn vis-a-vis other feedgrains, and the French Corn Producers' Associations has reacted favorably to the new price structure for cereals because of the expectation that prices will better reflect utilization values of grains as well as relative production costs and yields.

Also, the setting of a low intervention price for feed wheat could enhance the competitiveness of feed wheat with corn for compound feed use and on-farm use, although feed wheat still is limited in importance and feed value of corn is higher than that of wheat.

On the other hand, the higher threshold price for corn at the EC borders could result in larger French exports of corn to other EC countries, combined with favorable currency relationships. However, it is hazardous to predict whether France will use less corn domestically and export more, or whether the new pricing system will prove to be an incentive to grow corn.

Record South African Citrus Exports Seen

Another big citrus crop is expected in the Republic of South Africa this year, according to Rado J. Kinzhuber, U.S. Agricultural Attaché in Pretoria.

Total production is forecast at 660,639 metric tons, compared with the estimated 1975 harvest of 597,025 tons, and exports in 1976 are forecast to hit a record 382,701 tons, compared with 379,755 tons in 1975.

South Africa's 1975 citrus production was 17.5 percent less than that of 1974, mainly because of a 61 percent cut in fruit intake by the juice factories that resulted, in turn, from the serious decline in the world juice market caused by huge Brazilian supplies.

The cutback by juice factories in fruit intake resulted in nonutilization of lower quality fruit and thus the total production estimate was lowered.

South Africa's juice factories are expected to increase their intake of citrus for processing this year.

Rising export costs make it necessary for South Africa's exporters to realize higher prices to keep returns to producers from declining.

Despite development programs

Northeast Brazil Still Lags Behind Rest of Country

By R. L. BEUKENKAMP
Former U.S. Agricultural Attaché
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ECONOMIC DEVELOPMENT in Brazil's Northeast still is lagging seriously behind that of South Brazil, although massive infusions of capital by Government agencies, and to a lesser degree, private interests, have reduced the intensity of some of the region's problems. Others have proven to be more tenacious, however, and still remain largely unsolved.

In 1975, Brazil's total agricultural exports amounted to $4.9 billion, with the Northeast contributing about 20 percent. In 1974, exports from the Northeast were $1.3 billion, 87 percent of which were agricultural.

The Northeast's most important export commodities are sugar, cocoa beans, sisal, castor oil, cocoa butter, cotton, carnauba wax, and cashew nuts. In 1975, sugar accounted for about one-half of the region's agricultural exports and cocoa and cocoa butter for another 30 percent or so.

The production trend of most of these crops has generally been upward, although year-to-year totals are largely dictated by weather conditions. Between 1972 and 1975, cocoa output showed a 45 percent increase; rice, 31 percent; corn, 19 percent; castorbeans, 13 percent; and sisal, 20 percent. Cotton and manioc were down 20 percent and 3 percent, respectively.

Unemployment or underemployment and the persistent flow of workers from the interior to the coastal cities of the Northeast and from the Northeast to other parts of the country in the search for better employment opportunities, are two of the chronic problems for which solutions are still being sought. The outflow of the region's better trained and educated workers and managers robs the Northeast of many who would rise to positions of leadership.

Piled atop these problems are the area's widespread illiteracy rate, imbalanced diets that probably influence the mental attitude and working capacity of many born in the Northeast, absence of communications and marketing infrastructures, shortages of agribusinesses to absorb the regions's surplus agricultural production, and the slow pace of the Government's land distribution program.

About 32 million people live in the Northeast region—17.6 million in rural districts. It encompasses the States of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, and Bahía. The region's rural per capita income was only US$190 a year in 1974, 50 percent less than the average overall per capita income for the region and only 25 percent of the national average.

Of the approximately 8.35 million Brazilians who—as of the 1970 census—were actively engaged in the economic life of the Northeast, 62.5 percent worked in agriculture, 10 percent in industry, and 26.9 percent in all other sectors.

In view of the lack of regular and plentiful rainfall throughout most of the region, and the relatively large number of small farms, it will probably be difficult to boost rural incomes by any large degree. Only along the coast are there reasonable amounts of precipitation, with rainfall totaling between 24 and 55 inches per year. Away from the coast it ranges only from 15 to 31 inches a year and in some places measurable rain falls only 50 days a year, less in others. In some dry years, these low-moisture regions have zero rainfall.

THE BRAZILIAN Government turned its attention seriously to the development of the Northeast in 1959 when it established the Superintendency for Northeast Development (SUDENE), the agency whose function it is to improve the region's infrastructures relative to transportation, energy, and communication.

SUDENE's functions include the stimulation of regional investments through the use by manufacturing firms of fiscal incentives.

Instead of paying them to the Government, companies are allowed to invest 50 percent of their taxes on profits either in new regional ventures or in existing SUDENE-approved projects.

In the beginning of the tax investment program, new companies in the Northeast were allowed a 10-year tax relief. Many U.S. firms were among those opening subsidiaries in the region.

From 1962 through 1975, 1,078 projects had been approved by SUDENE with $5 billion invested—mainly in meat and cashew production.

But since this investment program particularly benefits industrial firms that are strongly capital intensive, its effect on rural unemployment has been minimal. The industries that developed from the tax program have an employment rate smaller than the annual rate of net regional emigration.

Although its total investments may seem impressive, SUDENE's budget for the nine-State region is less than the annual budget for the State of São Paulo. All in all, the Agency had done little to improve overall prospects for the agricultural sector.

On July 6, 1971, a fund was established to help small and medium farmers. A new entity, PROTERRA, was created to handle the fund's resources. Starting its activities on January 1, 1972, PROTERRA has made large sums available to the agricultural sector each year since then. For the period ending January 1, 1976, PROTERRA will have made available approximately $500 million for its various programs.

Although PROTERRA funds are used largely to establish new agribusinesses, they can also be used to finance land purchases by small farmers and nonland owning laborers. PROTERRA provides them with funds for the purchase of up to 150 hectares (1 ha= 2.471 acres), with a repayment period running from 12 to 20 years at the low interest rate of 5 percent, and with a 3-year grace period on repayments. This is equivalent in some instances to a rent subsidy of 25-30 percent.

The National Institute of Colonization and Agrarian Reform (INCRA) is the operating arm of PROTERRA. One of its activities was a survey of landholdings in the coastal areas of Ceará, Paraíba, and Pernambuco, to determine

what land would be eligible for expropriation. The law provides that owners of up to 1,000 hectares of land would be safe from further seizures if they made 20 percent of their holdings available for purchase by small farmers.

Similarly, owners of 3,000 hectares would be free of future expropriations if they were willing to give up 30 percent of their holdings, 40 percent in the case of holdings of 3,000-5,000 hectares, and 50 percent of holdings larger than 5,000 hectares. INCRA sets a fair purchase price for the land whether it is given up voluntarily or is expropriated by the Government.

However, the PROTERRA land reform program has had little impact on the number of landless farm laborers or small operators. Only about 17,000 hectares have changed ownership since the program's inception.

"In 1975, Brazil's total (farm) exports amounted to $4.9 billion with the Northeast contributing about 20 percent."

Land distribution data for 1960, compared with that for 1970 show that the number of farms of less than 1 hectare increased from 113,799 units to 348,796, a jump of 206 percent. But the number of farms of 1-2 hectares climbed by a smaller 74 percent, from 230,610 units to 402,256 units. The increase in the 2-5 hectare category was even smaller—39 percent—with the total going from 352,009 units to 492,481. In the 5-10 hectare category, the number of farms increased 47 percent from 176,706 to 259,774.

Thus it is apparent that most of the land transfers were of the smaller sized units and that farmers having 10 hectares or less in the more arid areas would have to depend on other employment to supplement income from farming.

PROTERRA's best showing thus far has been in the agribusiness sector. In time it will have in operation a total of 17 projects—two each for processing tomatoes, animal feeds, and cashews; three each for the manufacture of juice and castor oil; and five cotton facilities.

About $20 million has already been invested in the three facilities for processing pineapples, cashew apples, and passion fruits into juice, with respective production capacities of 43,200, 7,200, and 1,700 metric tons. The two tomato processing installations will cost about $6 million, and the two for processing manioc into feed pellets for export—located in Bahía—will require an investment of $13.5 million.

The projects for processing 18,000 tons of cashew nuts annually will require an ultimate investment of $2.3 million and are to be located one each in Ceará and Rio Grande do Norte. About 10,000 cashew trees are to be planted over a 4-year period to provide the plants with processing materials.

The three castor oil processing plants are to be located in Bahía and Ceará. Having a production capacity of 2,500 tons of oil annually, the plants will require total investment of $1.9 million. Two thousand hectares of plantation land will be established to provide the plants with castor-beans.

The five cotton projects are to be located in Ceará, Rio Grande do Norte, Pernambuco, and Bahía, and will absorb the production of 49,000 hectares of cottonland.

Under consideration for future construction in Minas Gerais (part of northern Minas Gerais is included in the "legal" Northwest) are a slaughterhouse/packing plant with a production capacity of 20,000 tons of meat, an orange juice plant capable of processing 10,000 tons of juice a year, and another plant to deep-freeze vegetables. Total investment in these three processing plants will approximate $20 million and the investment required by all the projects is $80 million.

The Bank of Northeast Brazil is supplementing the funds realized from the Government's investment tax break by making available around $100 million through 1976 to help finance these projects.

Agriculture in the Northeast will also benefit from the activities of DNOCS, the agency founded to fight the recurring effects of drought. DNOCS already has completed a water control project that brings irrigation water to 12,500 hectares in Ceará. Known as Morada Nova, the project has been divided into farms of 7 hectares each. One requirement of ownership is that the new landowners must join a farm cooperative.

CODEVASF is the agency engaged in developing the São Francisco River valley, for which project the International Bank for Reconstruction and Development (IBRD) is providing some of the necessary financing.

Because it was still dissatisfied with development progress in the region, the Brazilian Government established on October 30, 1974, a new program called POLONORDESTE. Franchised to develop five areas in the Northeast between 1975 and 1979, POLONORDESTE will open with $675 million in direct investments and $2.6 billion in investment credits.

The new program is to develop 300,000 square kilometers of land—100,000 hectares in the São Francisco River valley—to provide irrigation to large tracts of farmland under a number of projects, and to finance the establishment of several agribusinesses. The program has sponsored tests to determine the minimum size of viable farming operations. It has determined that even farms as small as 5 hectares can grow profitable crops of tomatoes, onions, melons, sugarcane, alfalfa, and tropical grasses.

In the elevated interior of the Northeast—at about 1,500 feet where rainfall is sufficient—the program is developing 27,000 square kilometers of land for the production of sugarcane, coffee, and fruits. Another 20,000 square kilometers of arid land—the so-called sertão—is being developed for cotton and livestock production.

POLONORDESTE is also making efforts to diversify agriculture on 43,000 square kilometers of coastal farmland, shifting it away from the monoculture of sugarcane to other crops. Under study as possible alternative crops are horticultural products, oilseeds, citrus fruits, and livestock. The program is also pushing colonization efforts in the more humid areas in the State of Maranhão.

"Sugar accounted for about one-half the region's (farm) exports and cocoa and cocoa butter for 30 percent."

In all of these projects, particular emphasis is being given to the development of small- and medium-size farms. The program is geared to the granting of low-interest farm credit to participants through farm cooperatives. Because such membership in the region is small, however, these types of organizations will have to be expanded.

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World Meat Output

Continued from page 5

from the 1975 level. Cattle numbers may decline 10.6 million head.

The increased beef production is projected to move into international trade, as exports this year are forecast at 185,000 tons, compared with 114,000 in 1975. Beef exports were 34,000 tons, product weight, in the first quarter of 1976, compared with 11,229 in that quarter of 1975. About 11,300 tons of beef have been sold to the EC, 8,500 to Egypt, and 3,700 to Greece.

A large sale to Brazil (up to 50,000 tons according to Uruguayan press reports, but 26,000 tons according to the Brazilian press) has been rumored, but this has been denied by both Governments. There are also reports that Paraguayan processors are interested in importing beef from Uruguay or Argentina. Most or all of the beef sold would be processed for re-export.

With estimated production of 390,000 tons, and if the 185,000 tons of exports are reached, domestic consumption will need to decline from the very high rate of 85.5 kilograms per capita seen in 1975. Domestic sales have remained strong despite a recent 18 percent retail price increase, but the Government has firmly denied that any beef consumption ban will be applied this year.

BOLIVIAN IMPORTS OF U.S. WHEAT UP IN 1976

Bolivian wheat imports are estimated to jump 69 percent in 1976, with most of the imports coming from the United States. Although Bolivia must import 75 percent of the wheat and flour needed for its domestic requirements, efforts are being made to make Bolivia self-sufficient in flour production by 1978.

Of the 93,000 metric tons of wheat Bolivia expects to import in 1976, 58,000 tons—62 percent—will be U.S. wheat under CCC credit—34 percent over U.S. imports last year of 20,000 tons. The remainder will be Argentine wheat that was imported during the early part of the year. It is estimated that the amount of wheat imported in 1976 will be sufficient to meet demand until February 1977.

Bolivian wheat output, mainly from the States of Chuquisaca, Cochabamba, and Potosi, in calendar 1975 was estimated at 69,000 metric tons. This is about 10 percent over the previous year's but still only 25 percent of domestic need, necessitating imports of 55,000 tons of wheat and flour with wheat equivalent of 138,000 tons. The United States accounted for 36 percent of this total, as did Argentina. The remainder was wheat imported from Uruguay. Although wheat production in 1976 is forseen rising to 70,000-75,000 tons, substantial wheat imports will still be necessary.

Flour imports, wheat equivalent, most of which come from Argentina, on the other hand, are estimated to drop 6 percent to 130,000 tons in 1976, from 138,000 tons last year.

While still relying on wheat imports, Bolivia is making attempts to mill some of its own flour. The Bolivian Flour Millers Association, under an agreement with the Government, is to mill all the flour consumed in the country by 1978. This means that the milling capacity would have to be increased from the current volume of 150,000 metric tons to 250,000 tons. If the extra milling capacity can be obtained, and with the present rate of extraction, domestic production of flour could reach 187,500 tons by 1978.

Bolivia currently has 13 flour mills with a capacity to mill about 150,000 tons of wheat annually. Three of the largest mill locations are La Paz, Oruro, and Cochabamba, which have over 82 percent of Bolivia's milling capacity. However, mills here are not working at capacity, and in 1976 will produce only an estimated 72,000 tons of flour.

Based on a report from
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